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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,219	12/30/1998	S. VINCENT BIRLESON	45981-P016US	3976

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DALLAS OFFICE OF FULBRIGHT & JAWORSKI L.L.P.
2200 ROSS AVENUE
SUITE 2800
DALLAS, TX 75201-2784

EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/224,219

Applicant(s)

BIRLESON, S. VINCENT

Examiner

Tilahun B Gesesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 2,7,14,23 and 28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-52 is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-13,15-22,24-27 and 29-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This is in response to applicant's amendment and response filed December 29, 2004 in which claims 1,3-6,8-13,15-22,24-27,29-53 are pending.

Response to Arguments

2. Applicant's arguments filed December 29, 2004 have been fully considered but they are not persuasive for the following reasons:

On page 10, third paragraph of response, applicant argued that. The combination of Caporizzo and Ciccarelli, does not show how an artisan of ordinary skill would be motivated to combine.

The examiner disagrees. The primary reference, Caporizzo et al. teaches a tuner (CATV) 11, that measures the input RF carrier signal level at several frequencies upon power up. Further, Caporizzo et al teaches , the system utilizes these measurements to selectively process RF input in order to receive the desired channel level for the tuner. In order to further improve RF tuner performance by dynamically limit the bandwidth (see abstract). To illustrate, Caporizzo's tuner, searches or sans plurality of channel by measuring the channels signal level and determining and optimizes the operation of the tuner. Further more, Caporizzo, discloses improves the tuner performance, by receiving channels with specific bandwidth, in other words, limiting power consumption.

The secondary reference, Ciccarelli, support the primary reference, a receiver, that measures signal level (RSSI or Eb/Io) and based on the measurement adjusts power consumption, see abstract.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, The applied prior art, Caporizzo et al. teaches a system for use with a CATV settop terminal measures the input RF carries signal power level at several channels or scans several channel upon the system power up and select the desired channel for reception of RF tuner. By doing so, the RF tuner dynamically limits time of scanning (see abstract). In a same field art, Ciccarelli et al. also teaches a tuner "receiver" minimizes power consumption based on measurement of the signal received (see abstract). Then, one ordinary skill in the art would be motivated to combine Caporizzo, which minimizes scanning time, would also control the power consumption, as evidenced by Ciccarelli. Therefore, the reference themselves suggests to meet applicant claim limitations.

In response to applicant's argument that On page 11, third paragraph of response applicant argued that applicant ask to withdraw the rejection, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

On pages 12-13, first paragraph of response referring to claims 1 and 32, applicant argued that the feature of adjustment circuitry operable in cooperation with the determining circuit, is not met in the rejection.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Regarding to claim 32, Caporizzo teaches adjusts circuitry in cooperation with the determination and power level (see column 3, lines 45-54).

On pages 13-16, fourth paragraph of response referring to claim 6,9,18, and 26, applicant argued that Caporizzo does teach assessing...incoming signal environment ... selecting an operating level for the tuner.

The examiner disagrees. Caporizzo teaches a system for use a CATV settop terminal measures the input RF carries (channels are scanned and determining signal level) power level and select the desired channel with desired power level by the tuner (see abstract). The term assessing is interpreted as searching or scanning in order to tuner to desired channel or carrier.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view

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of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Claim Objections

3. Claim 17 is objected to because of the following informalities: Claim 17, depends on canceled claim 14. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-6,8-13,15-16,18-22,24-27,29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caporizzo et al (US 6,014,547)"Caporizzo" in view of Ciccarelli et al "Ciccarelli"(US 6,498,926).

Regarding claim 1, Caporizzo discloses a tuner (11) for extracting specific signals from a set of signals on a carrier (RF input, col.2 lines 42-58) wherein the set of signals have at least one of a set of measurable characteristics, (a settop terminal (12), which measures the input RF carrier signal power level at several frequencies with the CATV RF input bandwidth upon system power up, col. 3 lines

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34-54). Caporizzo discloses means (14,16) for determining from a measurement of the measurable characteristics that are present in a particular set of signals certain desirable tuner operating characteristics, (col. 3 lines 34-54 and fig.2).Caporizzo discloses means operable under control of said determining means for changing the operating characteristics of the tuner, (col.3 lines 1-14, col.3 lines 34- 44,fig.5).

Caporizzo differs from claim 1, of the present invention in that the consumption levels with respect to tuner components for optimize tuner power level. However, Ciccarelli discloses a receiver, which provides the requisite level of system performance at reduced power consumption (abstract). Since, Caporizzo , in the same field of endeavor , suggests a tuner that limits receiving channel bandwidth in order to improve performance of the tuner (see abstract). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to limit a power consumption, as evidenced by Ciccarelli in controlling power consumption to reduce the power consumption, as taught by Ciccarelli, in order to save power cost and avoid wastage of battery or power.

Regarding claims 4,8,19-20, Caporizzo et al disclose means for changing power levels with respect to said tuner components,(abstract).

As to claim 3, Caporizzo et al disclose means for determining optimum operating characteristics for said tuner depending upon said determined operating characteristics, (abstract).

As to claim 5, Caporizzo discloses the tuner is constructed on a single substrate (fig.2).

As to claims 6,9 ,18, Caporizzo et al disclose the method of operating a tuner (col. 3 line 62-col.4 lines 7). Caporizzo et al disclose assessing from time to time the incoming signal environment wherein an assessment of said incoming signal environment is a function of signals being processed by said tuner, (col.5 lines 41-44). Caporizzo et al disclose based on the assessment environment selecting an operating level for said tuner (col.5 lines 44-47) ; and Caporizzo et al disclose setting the operation of said tuner consistent with said selected operating level (col.4 lines 58-col.5 line 23). Caporizzo differs in disclosing the selecting an optimum power consumption level for said tuner. However, Ciccarelli discloses a programmable linear receiver, which provides the requisite level of system performance at reduced power consumption (abstract). Since, Caporizzo , with similar field of area, suggests a tuner that limits receiving channel bandwidth in order to improve performance of the tuner (see abstract). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to limit a power consumption, as evidenced by Ciccarelli in controlling power consumption to reduce the power consumption, as taught by Ciccarelli, in order to save power cost and avoid wastage of battery or power.

Regarding claims 10-11, Caporizzo et al disclose the determining step includes taking signal measurements of the signal being processed by the tuner (abstract).

Regarding claims 12,21, Caporizzo et al disclose receiving from external source to the tuner (RF input of CATV fig.1).

As to claims 13, 22,Caporizzo et al disclose monitoring the RF input and the inband

receive signal strength (microprocessor) (fig.2).

Regarding claim 15, Caporizzo et al disclose adjusting the number of components that is active at any particular time (col.4 lines 15-28).

Regarding claims 16, 24-25, Caporizzo et al disclose the channel sweep and static method at different times (col.5 lines 30-36).

As to claim 26, Caporizzo et al disclose the method of operating a tuner (col. 3 line 62-col.4 lines 7). Caporizzo et al disclose assessing from time to time the incoming signal environment wherein an assessment of said incoming signal environment is a function of signals being processed by said tuner, (col.5 lines 41-44). Caporizzo et al disclose based on the assessment environment selecting an operating level for said tuner (col.5 lines 44-47). Caporizzo et al disclose setting the operation of said tuner consistent with said selected operating level (col.4 lines 58-col.5 line 23). Caporizzo differs in disclosing the selecting an optimum power consumption level for said tuner. However, Ciccarelli discloses a receiver, which provides the requisite level of system performance at reduced power consumption (abstract) . Since, Caporizzo , in the same field of endeavor, suggests a tuner that limits receiving channel bandwidth in order to improve performance of the tuner (see abstract). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to limit a power consumption, as evidenced by Ciccarelli in controlling power consumption to reduce the power consumption, as taught by Ciccarelli, in order to save power cost and avoid wastage of battery or power.

As to claim 27, Caporizzo et al disclose a tuner comprising the circuit for determining tuner operating characteristics from knowledge of the signals being processed by the tuner (fig.2) and at least one circuit for adjusting the operating characteristics in accordance with said determining the circuitry fig.5) .

As to claim 29, Caporizzo et al disclose adjusting the number of components that are active at any particular time (col.4 line 55-col. 5 line 23).

As to claim 30, Caporizzo et al disclose receiving from external source (RF input of CATV),fig.1.

As to claims 31, 34-37. Caporizzo et al disclose the channel sweep and static method at different times (col.5 lines 30-36).

As to claims 32-33, Caporizzo discloses a tuner (11) for extracting specific signals from a set of signals on a carrier (RF input, col.2 lines 42-58) wherein the set of signals have at least one of a set of measurable characteristics, (a settop terminal (12), which measures the input RF carrier signal power level at several frequencies with the CATV RF input bandwidth upon system power up, col. 3 lines 34-54). Caporizzo discloses means (14,16) for determining from a measurement of the measurable characteristics that are present in a particular set of signals certain desirable tuner operating characteristics, (col. 3 lines 34-54 and fig.2).Caporizzo discloses means operable under control of said determining means for changing the operating characteristics of said tuner, (col.3 lines 1-14, col.3 lines 34- 44,fig.5). Caporizzo differs in disclosing power consumption levels

with respect to tuner components for optimize tuner power level. However, Ciccarelli discloses a receiver, which provides the requisite level of system performance at reduced power consumption (abstract). Since, Caporizzo , in the same field of endeavor , suggests a tuner that limits receiving channel bandwidth in order to improve performance of the tuner (see abstract). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to limit a power consumption, as evidenced by Ciccarelli in controlling power consumption to reduce the power consumption, as taught by Ciccarelli, in order to save power cost and avoid wastage of battery or power.

Allowable Subject Matter

6. Claims 38-53 are allowed over the prior art. The following is an examiner's statement of reasons for allowance: the instant invention is directed to tuner system self adaptive to signal environment. The independent claim unique structural feature "environment assessment means for providing input signal environmental assessment, means for determining a power level from the input signal environmental assessment information, wherein the said power level determining means is coupled to said input signal environmental assessment means for communication of said input signal environmental assessment information , means for controlling power level information and means for tuning a selected signals from set of signals." The prior art Caporizzo et al (us 6,014,547) fail to the underlined limitation render obvious.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Abramsky et al (US 5,907,798) discloses improved radio receiver designs can be used in the operational environment of wireless telephone communications---current consumption and adjust variable attenuator , to maximum signal to noise and interference (see abstract).

Yagita et al (US 5,210,504) discloses a tuner capable of simultaneously satisfying a low noise factor, distortion and low power consumption (see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 571-272-7879. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tilahun Gesesse
TBG

March 21, 2005

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TILAHUN GESESSE
PRIMARY EXAMINER